News release

Climate change is here to stay

22 October 2002

The damage already done to the climate by man's greenhouse gas emissions will affect us for the next 1,000 years. This is shown clearly in a new report, by scientists at the Met Office's Hadley Centre for Climate Prediction and Research, to be issued on Wednesday at the major UN Climate Change Conference in New Delhi. Even if atmospheric greenhouse gas concentrations were stabilised immediately, an unrealistic possibility, that would require emissions to be more than halved, the effects would still be with us for a very long time.

In recent years research by the Hadley Centre has shown that, as global warming takes hold, soils will emit more 'natural' CO_2, which adds to the man-made emissions, accelerating climate change - known as carbon-cycle positive feedback. The UN Framework Convention on Climate Change requires that concentrations of greenhouse gases be stabilised at a level that would prevent dangerous interference with the climate system. In this new report, Hadley Centre scientists calculate that, when the carbon-cycle feedback factor is taken into account, the maximum allowable emissions consistent with stabilisation of the climate would be almost halved.

Climate scientist Jason Lowe, the main author of the report, said "Some parts of the climate system take centuries or more to respond. Consequently, the emissions occurring today will be still be causing warming and sea-level rise several hundred years into the future."

New global observations to the end of August 2002, analysed by the Hadley Centre, show that global temperatures are comparable to the record breaking year of 1998.

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